

ABSTRACT OF THE DISCLOSURE

In one aspect of the invention, a system for preventing stall of a vehicle engine is provided. The system includes an integrated starter alternator operably connected with the engine. The integrated starter alternator is capable of selectively operating as a starter motor for transmitting torque to the engine and as an alternator for producing electric energy. The system also includes at least one electric energy storage device in electrical communication with the integrated starter alternator. The system further includes at least one controller in electrical communication with the integrated starter alternator. The system includes at least one sensor operably connected with the engine sending a signal indicative of engine performance to the controller. The controller compares the signal to a predetermined condition indicative of engine stall and controls the electric energy storage device and the integrated starter alternator to transmit a torque to the engine sufficient to prevent engine stall.